

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Sheet	i	of	11
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Complete If Known

Application Number	09/843,597
Filing Date	April 26, 2001
First Named Inventor	Thomas W. Mossberg
Group Art Unit	2872
Examiner Name	E. Cwiter
Attorney Docket Number	005455.P002

U.S. PATENT DOCUMENTS

Exam. Initials	Cite No.	Document Number	Date	Name	Class	Sub-class	Filing Date (if appropriate)
ORC	1	4,140,362	02/20/79	Tien			
ORC	2	4,387,955	06/14/83	Ludman et al.			
ORC	3	4,660,934	04/28/87	Akiba et al.			
ORC	4	4,740,951	04/26/88	Lizet et al.			
ORC	5	4,743,083	05/10/88	Schimpe			
ORC	6	4,746,186	05/24/88	Nicia			
ORC	7	4,773,063	09/20/88	Hunsperger et al.			
ORC	8	4,786,133	11/22/88	Gidon et al.			
ORC	9	4,824,193	04/25/89	Maeda et al.			
ORC	10	4,834,474	05/30/89	George et al.			
ORC	11	4,923,271	05/08/90	Henry et al.			
ORC	12	4,938,553	07/03/90	Maerz et al.			
ORC	13	5,107,359	04/21/92	Ohuchida			
ORC	14	5,195,161	03/16/93	Adar et al.			
ORC	15	5,357,591	10/18/94	Jiang et al.			
ORC	16	5,450,511	09/12/95	Dragone			
ORC	17	5,768,450	06/16/98	Bhagavatula			
ORC	18	5,812,318	09/22/98	Babbitt et al.			
ORC	19	5,830,622	11/03/98	Canning et al.			
ORC	20	6,011,884	01/04/00	Dueck et al.			

FOREIGN PATENT DOCUMENTS

Exam: Initials	Cite No.	Document Number	Date	Country	Class	Sub- class	Translation Yes No
		NONE					

**Examiner
Signature**

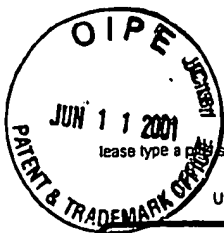
Craig H. Curtis

Date	Considered
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23 June 2004

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			Group Art Unit	2872
			Examiner Name	C. Curtis
			Attorney Docket Number	005455.P002
Sheet	3	of	11	

OTHER ART (Including Title, Author, Date, Pertinent Pages, etc.)

Exam. Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
one	1	B.A. CAPRON, ET AL., Design and Performance of a Multiple Element Slab Waveguide Spectrograph for Multimode Fiber-Optic WDM Systems., Journal of LightWave Technology, Vol. 11 No. 12., December 1993., IEEE Log No.9211169, Pgs. 2009-2014
one	2	R.J. DERI, ET AL., Quantitative Analysis of Integrated Optic Waveguide Spectrometers., IEEE Photonics Technology Letters, Vol. 6, No. 2, February 1994., Pgs.242-244.
one	3	A. GRUNNET-JEPSEN, ET AL., Fibre Bragg grating based spectral encoder/decoder for lightwave CDMA. Electronics Letters Vol. 35., No. 13., June 24th, 1999., Pgs. 1096-1097
one	4	P.PADDON AND JEFF F. YOUNG, Simple approach to coupling in textured planar waveguides, Optical Society of America 1998, Vol. 23, No. 19. Pgs. 1529-1531.
one	5	C.K. MADSEN, ET AL., Planar Waveguide Optical Spectrum Analyzer Using a UV-Induced Grating, IEEE Journal of selected topics in quantum electronics, Vol. 4, No. 6, November 1998, Pgs. 925-929
one	6	EMILIO GINI, ET AL., Polarization Independent InP WDM Multiplexer/Demultiplexer Module., Journal of Lightwave Technology, Vol. 16, No. 4., April 1998, Pgs. 625-630.
one	7	ROBERT W. DAY, ET AL., Filter-Response Line Shapes of Resonant Waveguide Gratings., Journal of Lightwave Technology. Vol. 14, No. 8, August 1996., Pgs. 1815-1824.
one	8	K.A. MCGREER., Tunable Planar Concave Grating Demultiplexer., IEEE Photonics Technology Letters, Vol. 8. No. 4, April 1996., Pgs. 551-553.
one	9	SUNING TANG, ET AL., A Novel Wavelength-Division-Demultiplexer with Optical In-Plane to Surface-Normal Conversion., IEEE Photonics Technology Letters, Vol. 7, No. 8, August 1995
one	10	K.A. MCGREER., Diffraction from Concave Gratings in Planar Waveguides., IEEE Photonics Technology Letters, Vol. 7. No. 3, March 1995., Pgs. 324-326.
one	11	HIROKAZU TAKENOUCI, ET AL., Analysis of optical-signal processing using an arrayed-waveguide grating., Optics Express, Vol. 6, No. 6, March 13, 2000., Pgs. 124-135.
one	12	A.GRUNNET-JEPSEN, ET AL., Demonstration of All-Fiber Sparse Lightwave CDMA Based on Temporal Phase Encoding., Photonics Technology Letters, Vol. 11 No. 10, Oct. 1999.

Examiner Signature	<i>David H. Curtis</i>	Date Considered	23 June 04
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Sheet 4 of 11			Filing Date	April 26, 2001
			First Named Inventor	Thomas W. Mossberg
			Group Art Unit	2872
			Examiner Name	C. Curtis
			Attorney Docket Number	005455.P002

OTHER ART (Including Title, Author, Date, Pertinent Pages, etc.)

Exam. Initials	Cite No.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.
see	13	RANDALL BABBITT, ET AL., Optical waveform processing and routing with structured surface gratings., Optics Communications 148, 1998., Pgs. 23-26.
see	14	GERALD A. BRIGHAM, ET AL., Analysis of scattering from large planar gratings of compliant cylindrical shells., Acoust Society of America, Vol. 61, No. 1, January 1977. pgs. 48-59.
see	15	T. KUROKAWA, ET AL., Time-space-conversion optical signal processing using arrayed-waveguide grating., Electronics Letters Vol. 33, No. 22, October 23, 1997. Pgs. 1890-1891.
see	16	AASMUND SV. SUDBO, ET AL., Reflectivity of Integrated Optical Filters Based on Elliptic Bragg Reflectors., Journal of Lightwave Technology Vol. 8, No. 6, June 1990. Pgs. 998-1006.
see	17	CHARLES H. HENRY., Four-Channel Wavelength Division Multiplexers and Bandpass Filters Based on Elliptical Bragg Reflectors., Journal of Lightwave Technology Vol. 8. No. 5, May 1990 IEEE., Pgs. 748-755.
see	18	E.M. KOONTZ, ET AL., Preservation of rectangular-patterned InP gratings overgrown by gas source molecular beam epitaxy., Appl. Phys. Lett Vol. 71, No. 10, September 1997., pgs. 1400-1402.
see	19	SEOK HO SONG, ET AL., Focusing-grating-coupler arrays for uniform and efficient signal distribution in a backboard optical interconnect., Optical Society of America 1995., Applied Optics Vol. 34, No. 26., September 10, 1995., Pgs. 5913-5919.
see	20	JOHN C. BRAZAS, ET AL., Analysis of input-grating couplers having finite lengths., Applied Optics Vol. 34, No. 19., July 1, 1995., Pgs. 3786-3792.
see	21	KEITH A. BATES, ET AL., Gaussian beams from variable groove depth grating couplers in planar waveguides., Applied Optics Vol. 32, No. 12., April 20, 1993., Pgs. 2112-2116.
see	22	S.S. WANG, ET AL., Theory and applications of guided-mode resonance filters., Applied Optics Vol. 32 No. 14., May 10, 1993., Pgs. 2606-2613.
see	23	R. MAGNUSSON, ET AL., New Principle for optical filters., American Institute of Physics 1992., Appl. Phys. Lett. Vol. 61, No. 9., August 31, 1992., Pgs. 1022-1024.
see	24	S.M. OJHA, ET AL., Demonstration of low loss integrated InGaAsP/InP demultiplexer device with low polarisation sensitivity., Electronics Letter Vol. 29, No. 9., April 29, 1993.

Examiner Signature	<i>Orang H. Cui</i>	Date Considered	23 June '04
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PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

SERIAL NO.

005455.P002

09/843,597

APPLICANT

Thomas W. Mossberg

FILING DATE

GROUP

April 26, 2001

2872

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U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

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Craig H. Curtis

DATE CONSIDERED

23 June '04

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(REV. 8-83)
JUN 11 2001

U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

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005455.P002

09/843,597

APPLICANT

Thomas W. Mossberg

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(Use several sheets if necessary)

U.S. PATENT DOCUMENTS

FOREIGN PATENT DOCUMENTS						
DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

M.A. COWIN, ET AL., Compact polymeric wavelength division multiplexer., Electronics Letters Vol. 35., No. 13., June 24, 1999., Pgs. 1074-1076.

J. CANNING, ET AL., Grating structures with phase mask period in silica-on-silicon planar waveguides., 1999 Elsevier Science B.V., Optics Communications 171., Pgs. 213-217.

P.K. TIEN, ET AL., Use of concentric-arc grating as a thin-film spectrograph for guided waves., 1980 American Institute of Physics., Pgs. 524-525.

EXAMINER

Craig H. Curtis

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23 June '04

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Form PTO-8449 (REV. 8-83) JUN 11 2001 INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)	U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. 005455.P002	SERIAL NO. 09/843,597
	APPLICANT Thomas W. Mossberg			
	FILING DATE April 26, 2001		GROUP 2872	

U.S. PATENT DOCUMENTS

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~~FOREIGN PATENT DOCUMENTS~~

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

all	AKIMASA KANEKO, ET AL., Design and Applications of Silica-Based Planar Lightwave Circuits., IEEE Journal of selected topics in quantum electronics Vol. 5., No. 5., September/October 1999., Pgs. 1227-1236.
over	Z. J. SUN, ET AL., Demultiplexer with 120 channels and 0.29-nm channel spacing., IEEE Photonics Technology Letters, Vol. 10, No. 1., January 1998., Pgs. 90-92.
on	C.K. MADSEN, ET AL., Planar waveguide optical spectrum analyzer using a UV-induced grating., IEEE Journal of selected topics in quantum electronics., Vol.4, No. 6., November/December 1998., Pgs. 925-929.

EXAMINER

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DATE CONSIDERED

23 June 2004

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U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

SERIAL NO.

005455.P002

09/843,597

APPLICANT

Thomas W. Mossberg

FILING DATE

GROUP

April 26, 2001

2872

INFORMATION DISCLOSURE CITATION

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U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

all	M.R. WANG, ET AL., Five-channel polymer waveguide wavelength division demultiplexer for the near infrared., IEEE Photonics Technology Letters, Vol. 3. No. 1., January 1991., Pgs. 36-38
all	MICHAEL R. WANG, ET AL., Wavelength-division multiplexing and demultiplexing on locally sensitized single-mode polymer microstructure waveguides., 1990 Optical Society America, Optics Letters Vol. 15, No. 7., April 1, 1990, Pgs. 363-365.
chw	CHUNMENG WU, ET AL., Simplified coupled-wave equations for cylindrical waves in circular grating planar waveguides., Journal of Lightwave Technology, Vol. 10, No. 11, November 1992., Pgs. 1575-1589.

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(REV 8-83)

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INFORMATION DISCLOSURE CITATION

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U.S. PATENT DOCUMENTS

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FOREIGN PATENT DOCUMENTS

DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
					YES	NO

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

267 LOUAY ELDADA, ET AL., Dispersive properties of planar polymer bragg gratings., IEEE Photonics Technology Letters, Vol. 12, No. 7, July 7, 2000., Pgs.819-821.

RAY T. CHEN, ET AL., Guided-wave planar optical interconnects using highly multiplexed polymer waveguide holograms., Journal of Lightwave Technology, Vol. 10, No. 7, July 1992., Pgs. 888-897.

V. MINIER, ET AL., Diffraction characteristics of superimposed holographic gratings in planar optical waveguides., IEEE Photonics Technology Letters, Vol. 4, No. 10, October 1992

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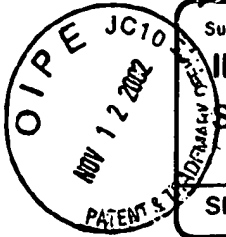
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Sheet | 1 | of | 2

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First Named Inventor	Thomas W. Mossberg
Group Art Unit	3633-2872
Examiner Name	Not Yet Assigned <i>C. Curtis</i>
Attorney Docket Number	5455P001X

U.S. PATENT DOCUMENTS

Examiner Initials*	Cite No.†	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code* (if known)			
CHC	1	4,440,468		Auracher, et al.	04-03-1984	
<p>RECEIVED</p> <p>NOV 14 2002</p> <p>GROUP 3600</p>						

FOREIGN PATENT DOCUMENTS

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Examiner Signature	<i>Braigh H. Curtis</i>	Date Considered	<i>23 June '04</i>
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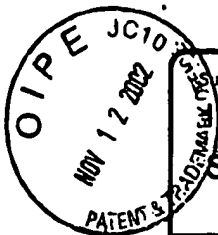
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*Unique citation designation number. *See attached Kinds of U.S. Patent Documents. *Enter Office that issued the document, by the two-letter code (WIPO Standard S.3). *For Japanese patent documents, the indication of the year of reign of the Emperor must precede the serial number of the patent document. *Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. *Applicant is to place a check mark here if English language Translation is attached.

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			Group Art Unit	3633-2872	
			Examiner Name	Not Yet Assigned C. Curtis	
Sheet	2	of	2	Attorney Docket Number	5455P001X

OTHER ART - NON PATENT LITERATURE DOCUMENTS			
Examiner Initials*	Cite No.†	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T*
OHC	6	SHOGO URA, ET AL., "Integrated Optic Wavelength Demultiplexer Using a Coplanar Grating Lens", Applied Optics, March 20, 1990, pp. 1369-1373, Vol. 29, No. 9, Optical Society of America, New York, USA	
OHC	7	RAY T. CHEN, ET AL., "Ten Channel Single-Mode Wavelength Division Demultiplexer in Near IR", Integrated Optical Circuits, September 3, 1991, pp. 134-142, Vole 1583, The International Societ for Optial Engineering, Boston, Massachusetts, USA	
OHC	8	W. R. BABBIT, ET AL., "Spatial Routing of Optical Beams Through Time-Domain Spatial-Spectral Filtering", Optics Letters, April 15, 1995, pp. 910-910, Vol. 20, No. 8, Optical Society of America, USA	
OHC	9	T. W. MOSSBERG, "Planar Holographic Optical Processing Devices", Optics Letters, April 1, 2001, pp. 414-416, Vol. 26, No. 7, Optical Society of America, USA	
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